

# Work Order ID 79069

**\*79069\***

Page 1

January-19-12 10:03:11 AM

Item ID: D2916-3 Accept **\*N900040100\*** Setup Start **\*NS1\***  
 Revision ID: Stop **\*NS2\***  
 Item Name: Cable Guard, 212 Skitube  
 Start Date: 19/01/2012 Start Qty: 4.00 **\*4\*** Cust Item ID:  
 Required Date: 26/01/2012 Req'd Qty: 4.00 **\*4\*** Customer:  
 Reference:

Approvals: Process Plan: M.C. J Date: 12/01/19 Tooling: Date: Run Start **\*NR1\***  
 QC: Date: SPC (Y/N): Date: Stop **\*NR2\***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
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Draw Nbr	Revision Nbr
D2916	Rev D

100 0.00  
**\*100\*** FLOW WATER JET  
 Waterjet Memo 0.00  
 FLOW CNC Waterjet 1-Cut as per Dwg D2916 Dwg Rev: D Prog Rev: D 2-  
 Deburr if necessary

B 12-1-19 (5)

110 0.00  
**\*110\*** QC2- Inspect parts off machine FAI/FAIB  
 QC Memo 0.00  
 Quality Control

B 12-1-19

120 0.00  
**\*120\*** HAAS CNC VERTICAL MACHINING #1  
 HAAS 1 Memo 0.00  
 HAAS CNC vertical machine #1 BATCH: AA 1- Mill as per Folio FB077 Rev:  
 & Dwg D2916 Rev: D 2-Deburr per dwg D2916

B 12-01-26 (5)

WIO: 79069		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: D29163 PAR #: \_\_\_\_\_ Fault Category: Water Jet / Small FAB NCR: Yes No DQA: AK Date: 12/2/2  
12-1163 Resolution: WDE-02-21 Disposition: WDE-02-21 QA: N/C Closed: CK Date: 12/3/2

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			
12/01/26	# 120	Qty x 5 (all) cut on w/3 two shut. Finish Length is 44.84 measured 44.875". P.C. no cut correctly on w/3	12.01.26 Q81042	ACCEPTABLE, THIS W/3 ONLY. PART GETS INSTALLED OVER OTHER CABLE GUARDS (D205-665-015). HOLE LOCATIONS IS OK.	AK 12-01-26	AK 12/01/26	12.01.26	12/01/26

NOTE: Date & initial all entries

# Work Order ID 79069

January-19-12 10:03:11 AM

**\*79069\***

Page 2

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 Start Date: 19/01/2012 Start Qty: 4.00 **\*4\*** Cust Item ID:  
 Required Date: 26/01/2012 Req'd Qty: 4.00 **\*4\*** Customer:  
 Reference:

Approvals: Process Plan: \_\_\_\_\_ Date: \_\_\_\_\_ Tooling: \_\_\_\_\_ Date: \_\_\_\_\_ Run Start **\*NR1\***  
 QC: \_\_\_\_\_ Date: \_\_\_\_\_ SPC (Y/N): \_\_\_\_\_ Date: \_\_\_\_\_ Stop **\*NR2\***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
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130 QC2- Inspect parts off machine FAI/FAIB 0.00

**\*130\***

QC

Memo

0.00

Quality Control

*ET/OK 12-01-26 (Y9)*

140 QC8- Inspect parts - second check 0.00

**\*140\***

QC

Memo

0.00

Quality Control

*Jul 5 12-01-27*

150 Identify as per dwg & Stock Location: 204 0.00

**\*150\***

Packaging

Memo

0.00

Packaging

*12/1/27 (S)*

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

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DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries

**Work Order ID 79069****\*79069\***

Page 3

January-19-12 10:03:11 AM

Item ID: D2916-3      Accept      \*N900040100\*      Setup Start \*NS1\*  
Revision ID:      Stop \*NS2\*  
Item Name: Cable Guard, 212 Skitube  
Start Date: 19/01/2012      Start Qty: 4.00      \*4\*      Cust Item ID:  
Required Date: 26/01/2012      Req'd Qty: 4.00      \*4\*      Customer:  
Reference:

Approvals:      Process Plan:      Date:      Tooling:      Date:      Run Start \*NR1\*  
QC:      Date:      SPC (Y/N):      Date:      Stop \*NR2\*

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
160	QC21- Final Inspection - Work Order Release	0.00							
*160*									
QC	Memo	0.00							
Quality Control									

12/1/30  
65

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

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DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries

# Picklist Print

January-19-12 10:03:15 AM

Page 1

Work Order ID: 79069

\*79069\*

Parent Item: D2916-3

\*D2916-3\*

Parent Item Name: Cable Guard, 212 Skitube

Start Date: 19/01/2012

Required Date: 26/01/2012

Start Qty: 4.00

Required Qty: 4.00

Comments: IPP Rev:A New Issue 06-06-19 JLM  
IPP Rev:B Now water jet 06-07-14 EC

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
MUHMWB10		Purchased	No			100	sf	377.8243	0.55	2.315789			

\*MUHMWB10\*

UHMW 1" Black

\*\*

B 12-1-19

Location	Loc Qty	Loc Code
MAT018	118.18	
120035	118.18	
MAT019	259.6443158	
117321	74.6	
117738	95.8	
117819	83.3	
118814	1.5	
119145	4.44431579	

120035

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**NOTE:** Date & initial all entries



DART AEROSPACE LTD		Work Order:	79069
Description: Cable Guard		Part Number:	D2916-3
Inspection Dwg: D2916	Rev: B	Page 1 of 1	

☒ First Article ☐ Prototype

[illegible]

Measured by: <i>BT/ark</i>	Audited by: <i>[Signature]</i>	Prototype Approval:	N/A
Date: <i>12-01-26</i>	Date: <i>12-01-26</i>	Date:	N/A

Rev	Date	Change	Revised by	Approved
A	04.01.12	New Issue P/O D205-665-015	KJ/RF	[Signature]

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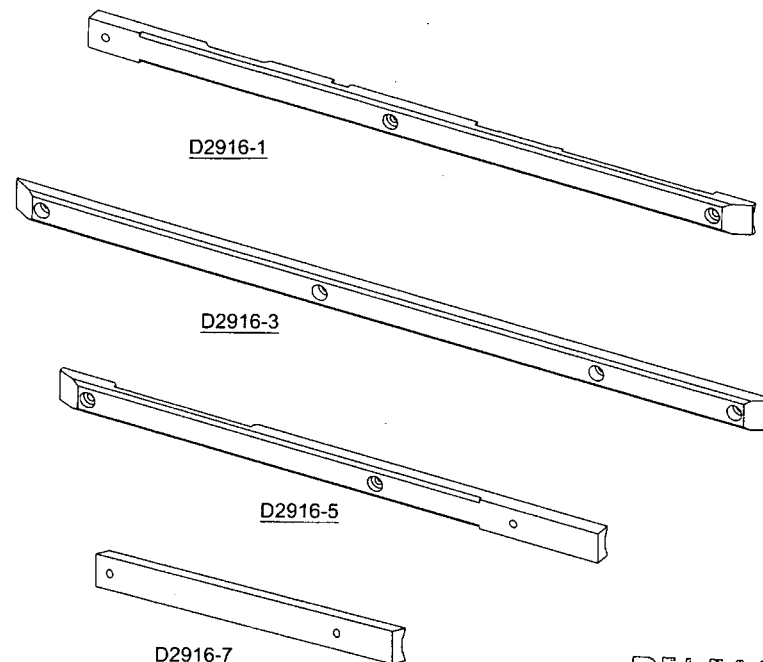
NO-79069-M.C.J  
12/01/19

# NOTES:

- 1) MATERIAL: UHMW BLACK TIVAR 1000 VIRGIN MATERIAL  
REF DART SPEC MUHMB10
- 2) FINISH: NONE
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK ALL UNMARKED RADII 0.020 TO 0.040
- 6) IDENTIFICATION: ENGRAVE P/N ON LOWER SIDE TO MAX DEPTH OF 0.010 AND MIN RADIUS OF 0.010
- 7) WEIGHT:

D2916-1 = 1.37 lbs  
D2916-3 = 2.33 lbs  
D2916-5 = 1.19 lbs  
D2916-7 = 0.96 lbs

- 8) ENGRAVE TWO DART LOGOS (OPPOSITE AS SHOWN) ON UPPER SIDE TO MAX DEPTH OF 0.015 AND MIN RADIUS OF 0.250
- 9) MACHINE CONSTANT SECTION A-A
- 10) MACHINE CONSTANT SECTION B-B
- 11) MACHINE CONSTANT SECTION C-C
- 12) MACHINE CONSTANT SECTION F-F
- 13) MACHINE CONSTANT SECTION G-G.
- 14) 25° ANGLE OF TRANSITION BETWEEN SECTIONS WITH MIN RADIUS OF 0.50
- 15) 50° ANGLE OF TRANSITION BETWEEN SECTIONS WITH MIN RADIUS OF 0.50
- 16) MACHINE SLOT WITH 0.063 RADIUS OF TRANSITION BETWEEN SECTIONS
- 17) ALL HOLES DRILLED ON CENTERLINES



RELEASE  
2011-11-02

D	REVISE MACHINE SLOT. (ZN C5-2, C4-4, C4-5, C6-5) REVISE SECTIONS D-D, L-L, N-N	RF	11.10.07
C	REVISE D-D: ADD L-L, M-M & N-N; FOR D4406-041/-043 COMPATIBILITY	RF	11.08.17
B	ADD K-K FOR D2521 COMPATIBILITY	CP	00.02.24
A	NEW ISSUE	CP	99.09.29
REV.	DESCRIPTION	BY	DATE
DESIGN	RF		
DRAWN	RF		
CHECKED	RF		
MFG. APPR.	RF		
APPROVED	RF		
DE APPR.	RF		
DATE	11.10.07		

**DART AEROSPACE LTD**  
HAWKESBURY, ONTARIO, CANADA

DRAWING NO. REV. D  
D2916 SHEET 1 OF 6  
TITLE SCALE  
CABLE GUARD NTS

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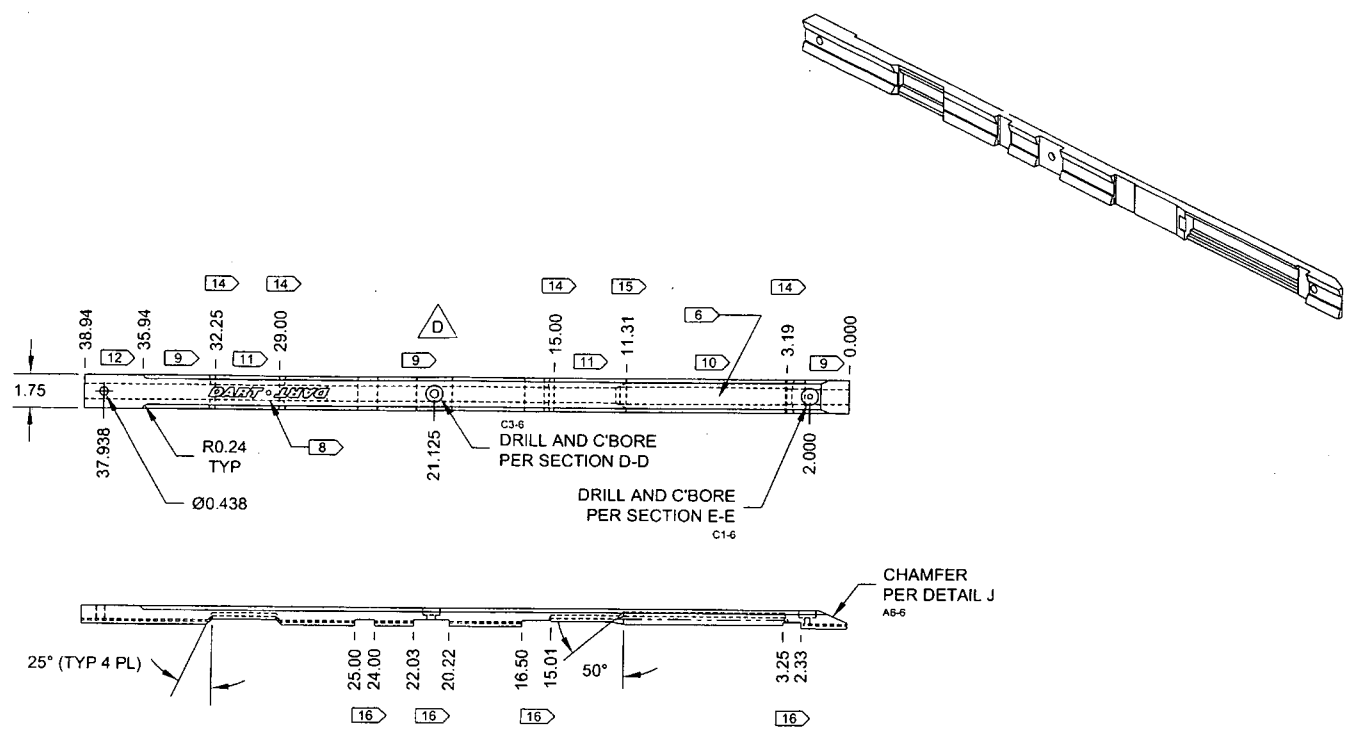
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**NOTE:** Date & initial all entries

79069



**D2916-1**

RELEASED  
2011-11-03  
JND

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MFG. APPR.	RF	D2916	SHEET 2 OF 6
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**Dart Aerospace Ltd**

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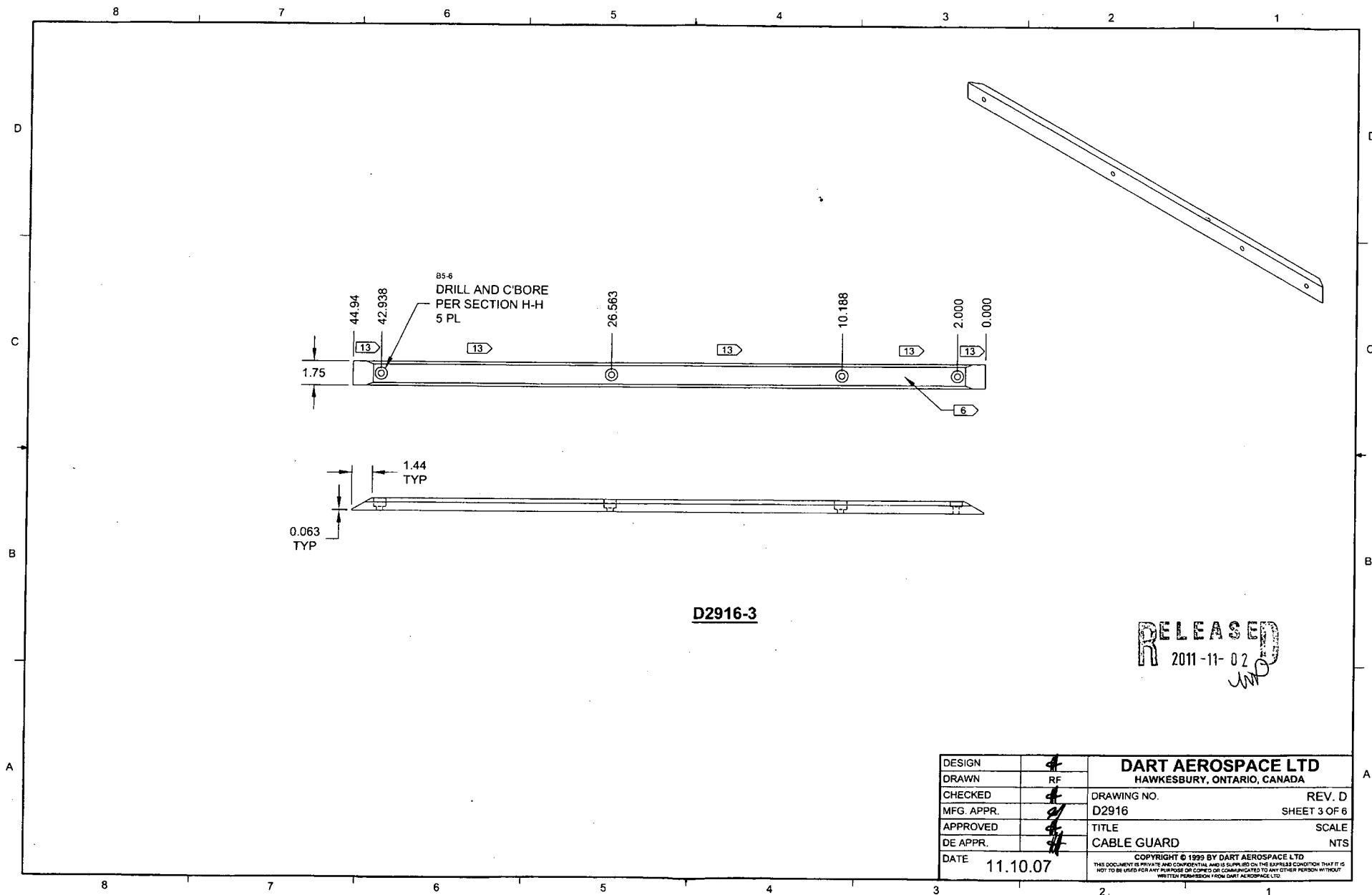
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79069



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**NOTE:** Date & initial all entries



8 7 6 5 4 3 2 1

D

C

B

A

14 6 10 14 9 R0.24 TYP 12 0.000

1.75 30.125 DRILL AND C'BORE PER SECTION E-E C1-6 13.188 Ø0.438 5.000 DRILL AND C'BORE PER SECTION D-D C3-6

CHAMFER PER DETAIL J A6-6

25° TYP, 2 PL 14.08 12.28 0.00 16

**D2916-5**

RELEASED 2011-11-02

DESIGN	4	<b>DART AEROSPACE LTD</b> HAWKESBURY, ONTARIO, CANADA
DRAWN	RF	
CHECKED	4	
MFG. APPR.	4	
APPROVED	4	
DE APPR.	4	
DATE	11.10.07	

DRAWING NO. REV. D  
D2916 SHEET 4 OF 6

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8 7 6 5 4 3 2 1

RELEASE  
2011-11-02

**D2916-5**

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DRAWN	RF	<b>HAWKESBURY, ONTARIO, CANADA</b>	
CHECKED	<del>4</del>	DRAWING NO.	REV. 1
MFG. APPR.	<del>4</del>	D2916	SHEET 4 OF 4
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**Dart Aerospace Ltd**

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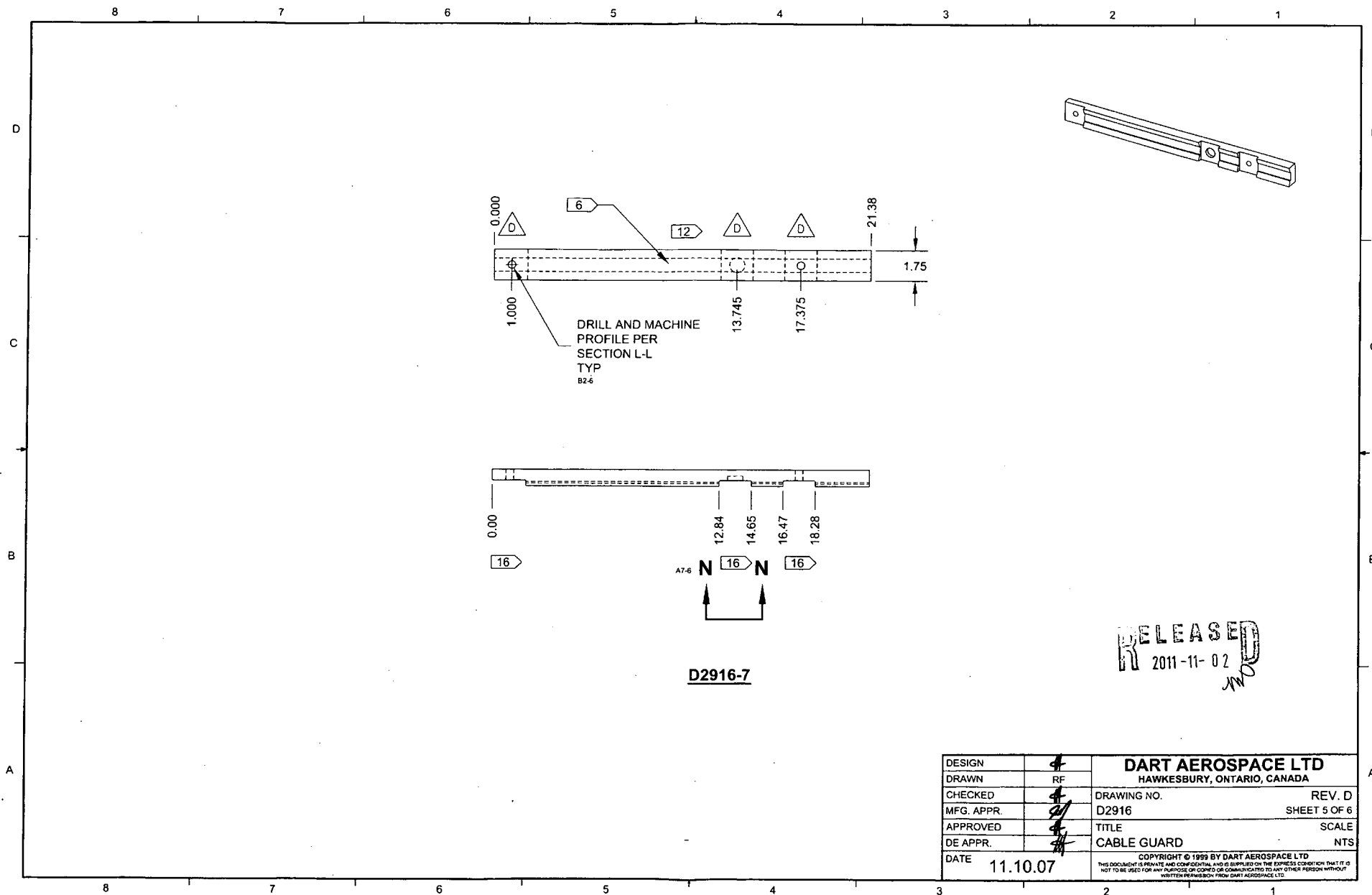
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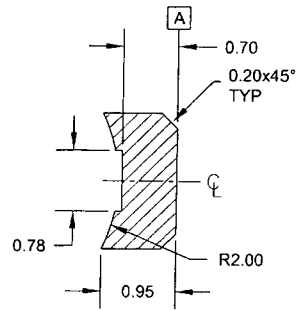
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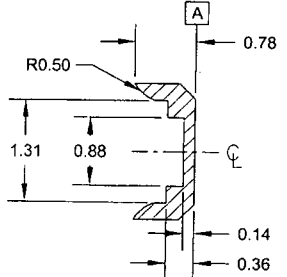
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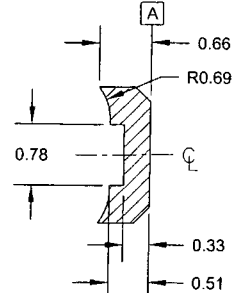
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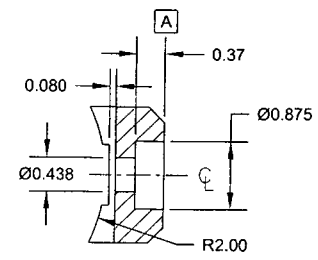
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C6-2  
C4-4  
C6-4



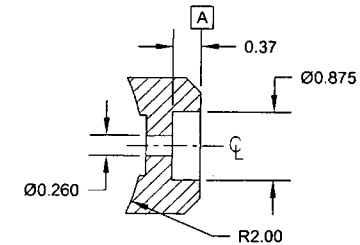
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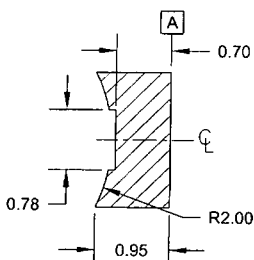
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C4-2



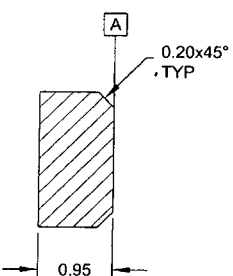
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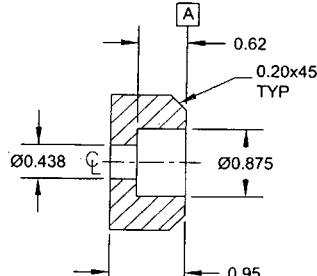
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C5-4



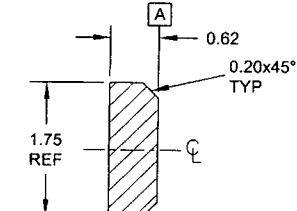
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C5-5



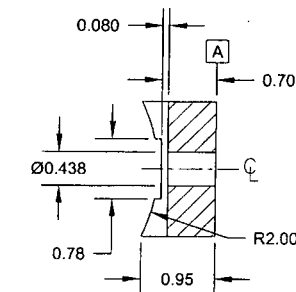
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C5-3  
C6-3  
C7-3



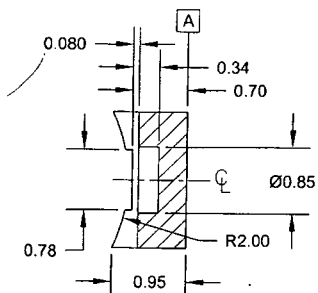
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SCALE 4X  
C6-3



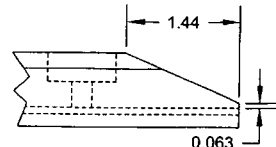
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B3-2  
B4-2-2  
B5-2



SECTION L-L  
SCALE 4X  
C5-5



SECTION N-N  
SCALE 4X  
B6-5



DETAIL J  
SCALE 4X  
B3-2  
B7-4

RELEASED  
2011-11-02

DESIGN	4	DART AEROSPACE LTD	
DRAWN	RF	HAWKESBURY, ONTARIO, CANADA	
CHECKED	4	DRAWING NO.	REV. D
MFG. APPR.	4	D2916	SHEET 6 OF 6
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